

USSN: 09/838,884Attorney Docket No.: 117-P-1345US11**Remarks**

Claim 28 has been amended and new claims 36-41 have been added as shown above. Antecedent basis for these amendments may be found in the written description at, e.g., page 2, line 5, page 5, lines 8-9, page 6, line 17, page 8, lines 15-16 and 26 and page 9, line 4. Following entry of this amendment, claims 1-41 will be pending, with claims 1-27 having been withdrawn from consideration.

Applicants thank the Examiner for extending an in-person interview to the undersigned attorney on March 17, 2005. The substance of the interview involved the pending claims, the references cited in the December 15, 2004 Office Action and the arguments set out below.

**Rejection of Claims 33-35 under 35 USC §112**

Claims 33-35 were rejected under 35 USC §112, second paragraph, as being indefinite on grounds that:

*"Independent claim 33 states that a strip agent is applied to "a dried waterborne radiation cured overcoat". It is unclear how the overcoat is both "dried" and "waterborne". " (see the Office Action at page 2, numbered paragraph 2).*

The overcoat is recited in claim 33 as a "dried waterborne" overcoat because it is dried and was waterborne. In a laminate finish, such an overcoat can provide a smooth coating having an especially desirable appearance. As demonstrated during the prior interview on May 13, 2004, some 100% solids radiation curable coatings may have a high viscosity and a ridged surface appearance after cure. 100% solids radiation curable coatings may also be formulated using lower viscosity monomers to reduce the coating viscosity and thereby discourage ridge formation. However, if applied atop a strippable intermediate coating, such reduced viscosity formulations may provide cured coatings having very uneven gloss ("diving"). A waterborne radiation curable coating may be dried so that it may be walked upon (thereby permitting subsequent radiation curing using mobile curing equipment) and can provide a smooth finish with a desirable appearance after radiation curing.

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**Rejection of Claims 33-35 under 35 USC §102(b)**

Claims 33-35 were rejected under 35 USC §102(b) as being anticipated by Published PCT Application No. WO 94/22965 (Koreltz et al.), on grounds that:

*"Koreltz et al. disclose compositions and methods of using compositions to strip coated surfaces such as finished floors (Page 1, lines 5-10). The compositions are effective in removing multiple coatings of a standard floor sealer/finish comprising urethane/acrylic polymers (Page 3, lines 35-37) and the method of removing the sealer/finish coating from a surface comprising: applying a stripper composition to the coating wherein the coating is multiple layers of the same or different compositions (hence meeting the limitation that the strip agent is applied to a dried radiation cured overcoat which is adhered to a dried intermediate layer atop a substrate) and allowing the composition to contact the coating for a time sufficient to remove the coating. Preferred methods include abrading the coating (Page 4, lines 1-35). Table I shows the % of coating removed after immersing coated strips in the stripper composition for 2.5 minutes and the "% removed" ranges from 67-92%. All limitations of claims 33-35 are disclosed in the above reference."* (see the Office Action at page 3, numbered paragraph 3; emphasis in original).

*"Applicant's arguments with respect to claims 33-35 have been fully considered but they are not persuasive. Applicants traverse the rejection of claims 33-35 under 35 U.S.C. 102(b) as being anticipated by Koreltz et al. (WO 94/22965) and submit that the Declaration shows that the tests of Koreltz's stripper using their 2.5 minute dip test do not remove a UV cured overcoat. The Examiner has reviewed the data provided in the Declaration and takes the position that it is unclear how it relates to the rejection of claims 33-35 under 35 U.S.C. 102(b) as being anticipated by Koreltz et al. (WO 94/22965). The basis of the rejection as described in Paragraph 3 above clearly outlines how Koreltz meets the limitations of claims 33 and 35 and the Applicants have failed to clearly point out any distinction between Koreltz's invention and the invention recited in claims 33-35. Hence, this rejection is maintained."* (see the Office Action at page 5, numbered paragraph 5).

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Applicants respectfully disagree. Koreltz et al. do not disclose stripping a "radiation cured" coating as that term would be understood by a person having ordinary skill in the art. See in this regard the July 1, 2004 Hei Declaration at page 2, lines 12-13, which states that:

*"CITATION sealant/finish does not provide a "radiation cured overcoat" as recited in claims 33 – 35. Radiation cured finishes are not mentioned in Koreltz et al., and are much harder to strip than standard materials such as CITATION sealant/finish. A person having ordinary skill in the floor finish art would not conclude from tests based on stripping CITATION sealant/finish that Koreltz et al.'s stripping agents could be used to remove more durable materials such as a radiation cured overcoat."*

See also the previously-cited Hamrock et al. reference, which states at page 6, lines 15-18 that:

*"Certain terms will be understood to have certain meanings, as set forth herein. ... "Radiation curable", in referring to the coatable compositions, means that the coatable composition will form a hardened coating upon exposure to radiation such as UV radiation or visible light (e.g., 180 to 800 nm)."*

Similar definitions may be supplied from other references, if need be. Radiation cured coatings typically contain a photoinitiator that initiates a curing reaction (see e.g., the formulations in applicants' Table 3-1 and Hamrock et al. at page 2, lines 9-15 and page 6, lines 3-5). Koreltz et al. strip a conventional acrylic emulsion finish that is not radiation cured and does not contain a photoinitiator (see e.g., the enclosed Material Information Disclosure Statement for BUCKEYE CITATION Sealer/Finish).

Koreltz et al. did place tiles coated with 10 coats of BUCKEYE CITATION Sealant/Finish in an oven for 3 days at 49° C. This was said to be done "to allow the coatings to fully harden, and thus simulate aged and burnished finish" (see Koreltz et al. at page 12, lines 22-25). This was not done to "radiation cure" the coatings. A standard floor finish such as BUCKEYE/CITATION Sealant/Finish will harden by air drying between coats, and when wet would not cure merely by exposure to radiation such as UV radiation or visible light.

The Hei Declaration shows that tests of a Koreltz et al. stripper using Koreltz et al.'s 2.5 minute dip test did not remove a UV-cured waterborne overcoat whether applied as a single

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layer or in a laminate finish. Koreltz et al. do not show the invention claimed in claims 33-35. Applicants accordingly request that the rejection of claims 33-35 under 35 USC §102(b) be withdrawn.

#### Rejection of Claims 28-32 under 35 USC §102(b)

Claims 28-32 were rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 4,421,782 (Bolgiano et al.), on grounds that:

*"Bolgiano et al. disclose flooring materials and a process for making such flooring materials whereby a substrate (corresponding to the intermediate coating of the claimed invention) is treated with a solution comprising water, acrylic acid and a surfactant (corresponding to the overcoat of the claimed invention and meeting the limitations that the overcoat is UV curable and comprises an acrylate). Upon irradiating the treated substrate, a tough and durable surface is formed (Column 2, lines 16-23). The substrate may be treated while on an intermediate support surface or when in place on a finished product (Column 3, lines 5-12). The aqueous acrylic acid solution comprises 0.1 to about 75 percent by weight of acrylic acid and form about 0.01 to about 5 percent by weight of a surfactant (Column 3, lines 48-51). The coatings are curable by UV irradiation (see Examples). Examples II states that the coatings were applied to a vinyl-flooring tile. With regards to the limitations that the polymerized top coat is less strippable than the intermediate coating when each is coated atop a vinyl tile when the two coating are coated atop the vinyl tile, the Examiner takes the position that such material property limitations must be inherently met by the coatings taught by Bolgiano et al. given that the chemical composition of the coatings as taught by Bolgiano and that of the claimed invention are identical. All limitations of claims 28-32 are either inherent or disclosed in the above reference."*

(see the Office Action at pages 3-4, numbered paragraph 4; emphasis in original).

Applicants respectfully disagree. In Bolgiano et al. Example I (a comparison example), Bolgiano et al. coat an individual tile with a nonaqueous UV-curable layer (see e.g., col. 5, lines 5-46) and UV cure the coating by passing the coated tile (apparently using a conveyor belt)

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under medium pressure mercury lamps at a speed of 10 ft/min (see e.g., col. 5, lines 46-53). In Example II, before carrying out the UV curing step, Bolgiano et al. immerse or dip the Example I coated tile in an aqueous mixture of acrylic acid, water, and surfactant but no photoinitiator (see e.g., col. 6, lines 9-10, 31-34 and 53-57; cf. col. 4, lines 43-46). Bolgiano et al. then pass the resulting "wet-on-wet" coated tile under the mercury lamps to carry out UV curing of the lower nonaqueous layer (see e.g., col. 6, lines 10-31). Bolgiano et al. say that the lower nonaqueous layer is UV cured and that some acrylic acid from the upper layer may diffuse into and copolymerize with the polymerizable components in the lower nonaqueous layer (see e.g., col. 6, lines 27-31). Bolgiano et al. also say that excess aqueous coating material was washed away after the UV cure step (see e.g., col. 6, lines 13-14).

Bolgiano et al. do not apply to a dried intermediate coating an overcoat that "adheres to the dried intermediate coating and is less strippable and more wear resistant than the dried intermediate coating" as recited in claim 28. Bolgiano does not anticipate claims 28-32. Applicants accordingly request withdrawal of the rejection of claims 28-32 under 35 USC §102(b) as being anticipated by Bolgiano et al.

### Conclusion

Applicants have made an earnest effort to place the application in condition for allowance. Koreltz et al. do not disclose stripping a "radiation cured" coating as that term would be understood by a person having ordinary skill in the art. Bolgiano et al. do not apply to a dried intermediate coating an overcoat that "adheres to the dried intermediate coating and is less strippable and more wear resistant than the dried intermediate coating" as recited in claim 28. Passage of the application to the issue branch is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney if there any questions regarding this Amendment.


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IPLM Group, P.A.  
P.O. Box 18455  
Minneapolis, MN 55418

Respectfully submitted on behalf of  
Ecolab Inc.



David R. Cleveland  
Registration No: 29,524  
612-331-7412 (telephone)  
612-331-7401 (facsimile)  
Customer No. 23322